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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/531,007	10/13/2005	Fedja Bobanovic	920602-99281	2701
23644 7590 10/27/2010 BARNES & THORNBURG LLP One North Wacker Drive CHICAGO, IL 60690-2786				
EXAMINER NGUYEN, THONG Q				
ART UNIT 2872		PAPER NUMBER		
NOTIFICATION DATE 10/27/2010		DELIVERY MODE ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Patent-ch@btlaw.com

### Office Action Summary

**Application No.**

10/531,007

**Applicant(s)**

BOBANOVIC ET AL.

**Examiner**

Thong Nguyen

**Art Unit**

2872

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 August 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 32-62 is/are pending in the application.
- 4a) Of the above claim(s) 35-47 and 50-62 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 32-34 and 48-49 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-06)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Response to Amendment***

1. The present Office action is made in response to the amendment filed on 2/24/2010.
2. It is noted that in the amendment, applicant has amended claims 32 and 48. There is not any claim being added into or canceled from the application. The pending claims are claims 32-62 in which claims 32-34 and 48-49 are examined in this Office action and claims 35-47 and 50-62 have been withdrawn from further consideration as being directed to non-elected inventions. Note that claims 1-31 were canceled in the Pre-amendment of 4/12/2005.

***Claim Rejections***

3. Claims 32 and 48 are objected to because of the following informalities.  
Appropriate correction is required.

a) In each of claim 32 (line 19) and claim 48 (line 6), the terms "system, and" should be changed to --system,--.

***Claim Rejections - 35 USC § 103***

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
5. Claims 32 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Endo et al (of record) in view of Wolf et al (of record) and King et al (US Patent No. 6,122,396).

Endo et al disclose a confocal microscope. The confocal microscope as described in paragraphs [0220]+ and shown in figs. 19+ comprises the following features: a) a means for mounting a specimen (40) which is able to move along an optical axis; b) a light source system (30, 32) for providing light to illuminate the specimen; c) a confocal scanning system (102, 42, 96) for directing light from the light source system to the specimen in one direction and for directing light reflected from the specimen to a detecting system in other direction. The scanning disk (102) is rotated to guide light emitted from the disk to scan repeatedly an area of interest of the specimen; d) a detecting system (44, 46) having a charged coupled device (46) which comprises a plurality of spatially distinct sensitive regions for receiving light reflected from the specimen after passed through the apertures of the scanning disk (102); and d) a control system (86, 60a-b, 78, 104, 106) having a host computer (86) and a controller (78) for controlling the operation of the charged coupled device (46), the scanning disk (102) on the basis of input signals provided by the photodetectors (60a, 60b), synchronizing signal generator (104), computer (86), ...so that the time the light from the specimen incidents on the charge coupled device is synchronized with the scanning time of the scanning disk. See paragraphs [0226], [0248], for example. It is also noted that the signals from the charged coupled device is displayed on a monitor (58), see paragraphs [0221]-[0222].

There are two things missing from the microscope provided by Endo et al as follow: First, Endo et al does not explicitly state that the control circuit is a state

machine having a state counter, a memory and a duration downcounter which receives a clock signal, and Second, the host computer arranged to supply state data to the controller which controls the scanning system, the light source and the image capture device.

Regarding to the first feature missing from the microscope provided by Endo et al, it is noted that the use of a control system having a host computer and a controller having counters, memory, clock signals, and other computerized elements to control the operations of optical elements of a microscope based on the outputs from detecting elements is known to one skilled in the art as can be seen in the microscope provided by Wolf et al. In particular, Wolf et al disclose a microscope (10) having an illumination system, a scanning system and a detecting system, see columns 5-7 and figs. 1-2, wherein the detecting system comprises a plurality of detectors, a computer, a frame storage control circuit,...which are connected to receive and send controlled signals to control the operations of the optical elements constituted the microscope, see columns 21+ and figs. 9+. Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the microscope provided by Endo et al by using a detecting system having a plurality of detectors, a computer, a frame storage control circuit,...which are connected to receive and send controlled signals to control the operations of the optical elements constituted the microscope as suggested by Wolf et al for the purpose of control the operation of

the optical elements to meet a particular set of conditions including the time to receive image of the detecting elements.

The combined product as provided by Endo et al and Wolf et al does not explicitly disclose that host computer arranged to supply state data to the controller which controls the scanning system, the light source and the image capture device; however, the use of a computer for controlling the operation of optical components of a microscope wherein the computer is connected to a plurality of subsystems, external devices, display elements, ... in a feedback (or two ways) manner is known to one skilled in the art as can be seen in the microscope provided by King et al, see columns 5-8 and fig. 1. Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the combined product as provided by Endo et al and Wolf et al by using a two-ways connection between the computer and its controllers/operating subsystems as suggested by King et al for the purpose of operating the microscope and for providing a user means for operating the microscope based on his/her desired application.

6. Claims 33-34 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Endo et al in view of Wolf et al and King et al as applied to claims 32 and 48 above and further in view of Morita et al (of record).

The combined product as provided by Endo et al, Wolf et al and King et al does not explicitly disclose a shutter disposed on the downstream of the light source system (30, 32) for controlling the light from illumination the specimen. Regarding

to the feature regarding to a shutter disposed upstream of the charged coupled device, such feature is inherently known because any charged coupled device comprises a shutter disposed therein. It is also noted that Endo et al do not disclose the operation of the shutter of the charged coupled device in relation to the operation of the shutter disposed downstream of the light source system. However, the use of two shutters wherein one is disposed on the downstream of a light source and the other is disposed upstream of a charged coupled device wherein the two shutters are connected to a control system so that their operations are related to each other is known to one skilled in the art as can be seen in the optical device provided by Morita et al. In particular, Morita et al disclose an optical device having an illumination system for providing light to illuminate an object and a detecting system for receiving light reflected from the object. The illumination system comprises a shutter (17) in the form of an acousto-optic element, see paragraph [0052] and the detecting system comprises a shutter wherein both shutters are connected by the control system so that their operations are synchronously related to each other. See paragraph [0062]-[0063]. Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the combined product as provided by Endo et al, Wolf et al and King et al by utilizing shutters in the illumination system and the detecting system as suggested by Morita et al for the purpose of controlling the operations of the shutters and for reducing errors to the images received by the detecting system.

***Response to Arguments***

7. Applicant's arguments with respect to claims 32-34 and 48-49 as provided in the amendment of 2/24/10 have been considered but are moot in view of the new grounds of rejection.

***Conclusion***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thong Nguyen whose telephone number is (571) 272-2316. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephone B. Allen can be reached on (571) 272-2434. The fax phone



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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thong Nguyen/  
Primary Examiner, Art Unit 2872